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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,773	11/18/1999	RYUICHI KATAYAMA	016778/0398	6370

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT PAPER NUMBER

2653

DATE MAILED: 08/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/442,773

Applicant(s)

KATAYAMA, RYUICHI

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on June 17 ~~July~~ 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 2-9 and 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3, 4 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

Applicant's response of 6/17/02 has been considered with the following results.

1. Applicant's election of Group II, species "d" in Paper No. 7 dated 6/17/02 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Hence claim 2 is withdrawn from further consideration as being drawn to a nonelected invention.

2. Claims 3-9, 11-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7, dated 7/17/02

In response to applicant's election in paper No. 7, dated July 17 2002, applicant has elected Group II as identified in the restriction requirement, and claims 3-15 as identified in paper No. 6 dated May 16 2002.

Applicant indicated that their response to election is with traverse, however; since no errors in the restriction requirement have been specifically indicated, the examiner treats the above election as an election without traverse, see M. P. E. P. paragraph 821.02.

Furthermore, applicant continues in his election to select species "d", as identified in the above restriction requirement made by the examiner, as being improper.

The examiner has reviewed both the designation of the two Groups (Groups I & II) and the species identified in the previous election requirement and concludes that the species requirement is proper. The examiner does not understand why applicant has identified such as being improper, especially because of the distinctions/specification disclosure with respect to the different embodiments.

Although the examiner does not understand why applicant cannot properly identify what claim reads upon what embodiments as identified in the species requirement of paper No. 6, the examiner presents the following further identification for applicant's review. Species "a" and claims 3-5, species "b" and claims 6-9, species "c" and claims 11-13.

Again the examiner considers applicant to be in a better position in identifying which claim(s) reads upon which disclosed species.

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If applicant considers the species to be merely obvious variances there over, and indicates such ✓  
in his next communication, then the election of species requirement between the different identified  
species will be withdrawn.

The examiner has considered applicant's arguments and has found them not persuasive for the  
reasons stated above. The requirement for restriction between the Groups and among the species in the  
elected Group is still being improper and is therefore made **FINAL**.

✓  
✓  
Claims 2, and 3-9,11-13 are withdrawn accordingly.

Linking claim 1 is examined along with the elected species of the elected Group.

**Priority**

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have  
been placed of record in the file.

**Information Disclosure Statement**

The submitted IDS as indicated in papers No. 3,4, and 5 have been reviewed and made of  
record.

**Drawings**

4. In order to avoid abandonment, the drawing informalities noted in Paper No. 6, mailed on 5/16/02,  
must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

Furthermore, the drawings are objected to under 37 CFR 1.83(a). The drawings must show  
every feature of the invention specified in the claims. Therefore, the limitations as recited in lines 4-5 and  
9 -10 of claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be  
entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to  
avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

**Specification**

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the  
invention to which the claims are directed.

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***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1,10,14 & 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to independent claim, the examiner cannot decipher the limitations recited in the last two lines of the claim. The phrase "an optical amount" is not understood. Further elaboration is respectfully request. None of the dependent claims clarify the above phrase and fall with the independent claim.

8. Claims 1, 10, 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The meaning/definition/disclosure with respect to the phrase "an optical amount" is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. The examiner cannot find support/working definition for this phrase in the remainder of the specification. If applicant can demonstrate that this is a common, well-known feature in this environment, such as by providing the definition or other prior art information defining such phraseology, then the examiner would withdrawal the above rejections (both paragraph one and two of 35 USC 112).

As far as the claims recite positive limitations and has interpreted by the examiner following positions with respect to the claims and prior art is taking.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1,10,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art further considered with Kubo.

The acknowledged prior art meets the limitations of claim 1.

As disclosed in the specification with respect to the identified prior art figures, figure 1 through 7, all the elements recited in the claim are found. With respect to the phraseology recited in the last two lines of the independent claim, the examiner considers such to be an inherent functions/result(s) from the elements positively recited in the remainder of the claim. Until applicant can convince the examiner that such a limitation is not an inherent functions of the elements recited in the remainder of claim 1, the examiner concludes that this is a proper position. Further explanation as to why such is not an inherent result/function/ability from the elements positively recited is respectfully requested.

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With respect to the limitations of claims 10 and 14, Kubo teaches in figure 1, the use of the appropriate Wollaston prism and holographic diffraction element combination - see for instance the description of element 14 at col. 3 lines 45 till col. 6 line 27.

It would have been obvious to one of ordinary skill in the art to modify the acknowledged prior art system with this additional optical combination of elements has taught by the Kubo reference, motivation is to provide for proper signal differentiation between servo information and data has discussed in the Kubo reference.

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 14 above, and further in view of Komma et al ('565).

With respect to the limitations of claim 15, applicant's attention is drawn to figures 8, 12 in the Komma et al. reference and as further discussed starting at col. 29 lines 15 plus.

As noted in the reference to Kubo, see for instance col.5 lines 15 plus, a suggestion to modify the holographic element is found. The holographic element defined in claim 15 is found in Komma et al.

It would have been obvious to one of ordinary skill in the art to modify your both combination of references has relied upon with respect to claim 14 and modify such with the additional well-known holographic pattern taught in Komma et al said such is considered merely the substitution of one holographic element for another which as specified in Kubo is permitted in his system, and such substitution for better signal separation is considered obvious.

14. Claims 1,10 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubo.

With respect to independent claim 1, all the elements positively recited are found in figure 1. With respect to the function will limitations recited in the last two lines of claim 1 because the examiner considers such to be merely an inherent description of the elements/operational functions while the elements recited in the claim are operational, the limitations are considered inherent in Kubo.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 14 above, and further in view of Komma et al ('565).

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The limitations of claim 15 are taught in the secondary reference to Komma et al has discussed above in paragraph 13.

Again the examiner considers the reasons to combine as discussed above in the paragraph.

15. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by the acknowledged prior art.

With respect to independent claim 1, as far as the examiner to determine from the description of the acknowledged prior art, all positive elements recited are met. With respect to the function will limitations recited in the last two lines of independent claim 1, again the examiner considers such limitations to be an inherent function will result of the elements positively recited when they are operational.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited remaining prior art documents of interest to applicant. In particular see figure 18 in Kato et al, figures 9-11 in Yamamoto et al, figure 14 in Kato et al ('951), figures 5 to 8 in Katayama ('851), the entire disclosure of Katsuma, figure 8 of Kajiyama et al, entire disclosure of Shimano et al, figure 6 of Kim et al, and the entire disclosure of Komma et al ('296).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and for After Final communications.

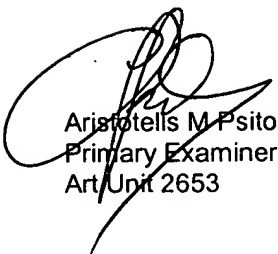
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



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Aristotelis M. Psitos  
Primary Examiner  
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August 15, 2002